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ABSTRACT

This paper presents the justification for evaluative and instrumentation research into teacher effectiveness in the Third World in general and reports an attempt, within an instrumentation research, to evolve an operational definition of the concept such as would facilitate its assessment within the Nigerian cultural context in particular. To this end, the Critical Incident Technique was used to identify, from over 10,000 pupils and teachers in over 300 Primary and Secondary schools across Nigeria, the teaching behaviors which were perceived to promote or hinder pupils' learning. By categorizing about 3,000 effective and ineffective teacher behaviors, seven dimensions of teacher effectiveness were derived. These dimensions and the discrete teacher behaviors which define them constitute the operational definition from which specifications were derived for the development of teacher selection and teacher evaluation instruments. (Author)

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TEACHER EFFECTIVENESS:

Towards the Definition of A Complex Concept

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INTRODUCTION

General Background

The need to monitor the effectiveness of the gigantic and highly capital-intensive educational system in Nigeria has become a public issue among Nigerian educationists since the inception of universal free education. For instance, the Test Development and Research Office, (TEDRO) of the West African Examinations Council (WAEC) was involved throughout the 1970s in formal and informal discussions, seminars and conferences during which the need to develop instruments for monitoring the educational system and, especially, for assessing the effectiveness of practising teachers was extensively deliberated upon.

It was under such an impetus that TEDRO carried out between 1975 and 1976 a pilot study titled 'Development of Teacher Selection and Evaluation Tests." The study used small samples of teachers and pupils within the Lagos State of Nigeria. Conceived as a preamble to a systematic study of the nature and measurement of teacher effectiveness, the tests which were then developed were not immediately validated but were used as sources of new ideas for future research.

Meanwhile, a status report on the mini-project had been presented at the Ford Foundation-sponsored conference of Anglophone West African Educational Research Council (AWAREC) in 1976 and at the subsequent planning meeting on Teacher Effectiveness Research (Freetown, December 1976) sponsored by the International Development Research Centre (IDRC), Ottawa. Thereafter, the build-up of research interest in teacher effectiveness assumed a new momentum as witnessed by the IDRC sponsorship of a review of teacher effectiveness research in the Third World in 1978 followed by an international colloquium on "Searching for the Effective Teacher: Contributions of Research to Policy" held in Lagos in March, 1979.

The above then is the background of a larger project approved by the WAEC in 1979/80 under the title "The Study and Evaluation of Teacher Effectiveness in Nigerian Schools" and supported financially by the IDRC*. The research project, finally dubbed "Teacher Effectiveness Research Project" (TERP), focussed mainly on the development of tests for the evaluation of practising teachers and for the selection of trainee teachers. For reasons which are obvious in the next section of this article, the study had first to identify and operationalise the concept of teacher effectiveness in a way that would facilitate its measurement. A description of that initial effort is the objective of this paper.

Review of Literature

A copious amount of teacher effectiveness research has been done, mainly in the developed countries, over the past century. However, not

only were most of these studies generally inconclusive and often contradictory in their findings but also they were not generalisable to the peculiar cultural milieu of the Third World (Avalos and Haddad 1980). What is more, the definition of teacher effectiveness so far evolved from such studies have been complex and controversial.

More disturbing still was the revelation by a review of the literature at the commencement of this study, that no more than 31 studies of teacher effectiveness had been done in the whole of Africa, nine of them in Nigeria (Ozumba 1981). With the exception of only one which was experimental, these studies used the survey approach and all of them were relational in design. Some of the studies (Ipaye 1975a; Nwana 1971) related antecedent variables, especially teacher characteristics, to process variables, especially teaching behaviours, while some others (Ipaye 1975b; Bello 1978; Falomo 1976) related process variables to outcome variables, especially student learning. Only one study (Madike 1976) examined the relationship among all of antecedent, process and outcome variables.

Some of the studies of teacher effectiveness done in West Africa (Obiora 1967; Yoloye 1971; Dixon 1972; Walker 1972; Tejan-Kella 1973) are of special interest in so far as they are instrumentation research with potentiality for providing some means of assessing teacher effectiveness. However, most of them (Dixon 1972; Walker 1972; Tejan-Kella 1973) suffer the limitation of irrelevance arising from their dependence on definitions and descriptions of teacher effectiveness derived from Western literature. The other two studies (Obiora 1967; Yoloye 1971) are relatively more relevant. However, as Ozumba (1979) pointed out, the description of the 'good' teacher

by Obiora (1967) was "not only subjective but controversial" while the observation Scheme in Yoloye's (1971) study contains categories which seem to need construct validation.

Thus, studies of teacher effectiveness in Nigeria, and in the developing countries in general, are yet to produce any passable definition which can serve as a basis for the development of valid instruments for the measurement of the concept. The question as to who the effective teacher is or what constitutes effective teaching therefore remains largely unanswered in the developing countries.

The problem of defining teacher effectiveness is not made easy by the multiplicity and sometimes incoherent nature of the role expectations of the teacher in the developing countries. Education in general and the teacher in particular are seen, at once, as agents of enlightenment and change, imparting knowledge and morality to the young and also agents of national unity, infusing a sense of oneness and belonging into a relatively new society or nation which consists of a variety of linguistic and ethnic groups. In addition, the good teacher is expected to respond to the personal and social needs of the children in his care, helping them to achieve certification and recognition.

The multiple goals and facets of education have created a babel of learning theories, socio-psychological theories and macro-social theories which, according to Avalos and Haddad (1980) "carry different implications for what might be considered as appropriate and 'effective' teaching behaviour." It is no surprise, therefore, that the IDRC sponsored review of teacher effectiveness research in the Third World (Avalos and Haddad, 1980)

could not adopt any definition of an 'effective' teacher on the grounds that "these theories are abstractions, often standing in opposition to each other and sometimes contradicting the conventional wisdom which parents and students take as their basis of setting expectations".

The adoption of these Western theories of doubtful cultural relevance by most researchers on teacher effectiveness has vitiated the outcome of such researches. For instance, the researchers have generally neglected non-class-room teacher variables, a serious omission in societies where the teacher's roles outside the classroom are often critical to his overall effectiveness. There are several other observable shortcomings of the teacher effectiveness researches (and evaluation procedures) found in the literature. One is the excessive concern for teacher cognitive behaviour almost to the exclusion of affective, personality and aptitude variables. Another is the ambiguity and inadequate operationlisation of variables which accounts for the subjectivity of the assessment and weighting of such variables as factors of teacher effectiveness.

Purpose of the Study

The weaknesses and gaps detected in earlier studies of teacher effectiveness formed the basis of the decision to attempt to evolve a pragmatic and operational definition of effective teaching so that it can be objectively and accurately measured. This study therefore set out to identify both cognitive and affective teacher behaviours which have been seen by appropriate observers to critically affect pupils' learning within the Nigerian educational and cultural setting.

The study also attempted to identify, among the discrete teacher behaviours, those which are effective and those which are ineffective. Finally, the study attempted to classify the teacher behaviours into categories which could serve as descriptive dimensions of teacher effectiveness.

It was not the intention of this study to evolve a universally acceptable or applicable definition of teacher effectiveness, considering the implications of socio-cultural differences for teacher role expectations and role fulfilment.

METHOD

General Approach

This study adopted a decidedly process approach to teacher effectiveness based, as it is, on extended observation of teacher behaviours. The study also took the stand that teaching is a technical activity and, as such, those who are most closely involved in it, i.e. teachers and pupils, are best placed to identify what teaching behaviours are effective. Hence, recourse was made to the Critical Incident Technique (CIT) which is generally known to facilitate the identification (by participants) of the critical requirements of success in a given job or professional activity.

The Critical Incident Technique and its Adaptation

The CIT had been used in various research situations, especially in the United States Air Force before its most renowned exponent,

Flanagan (1962) examined and refined its salient features and gave the technique prominence and popularity. Basically, the CIT involves the recording and analysis of a large number of job related incidents to the end that the kind of actions or behaviours (or lack of these) which promote or hinder successful job performance are identified. The discrete actions or behaviours so identified are then categorised to represent the important aspects of the job concerned and, finally, used as a basis of developing the content of training programmes and schedules of duty or instruments for personnel selection and evaluation.

As popularised by Flanagan (1962), the CIT has been used in individual and group interviews, self-reports and questionnaires. For the purpose of collecting large numbers and varieties of detailed information from a large number of respondents, as envisaged in this study, the questionnaire version of the CIT was considered most appropriate.

Having demonstrated in a pilot study (TEDRO/WAEC, 1977) that the Critical Incident Form (CIF), a special type of questionnaire, could be used to generate reliable and analysable data (i.e. information concerning 'effective' and 'ineffective' teacher behaviours) from both teachers and pupils, a refined version of that form was designed for use in the present study.

a Collection

The CIF was designed to obtain information about

(a) a teacher involved in a critical incident vividly remembered by the respondent;

(b) the type of school involved and the class or year level of the pupils taught by the teacher concerned; and

(c) the respondents.

These are in addition to information about the nature of the incident such as specific teacher action, the context or circumstance of the action, the consequence of the action on pupils' learning, pupil welfare and classroom discipline.

The instrument was administered to slightly over 10,000 teachers and pupils, mostly pupils, in about 300 primary and secondary schools in seven states of the Federal Republic of Nigeria in April and May, 1980. TERP staff who were also senior members of the staff of the WAEC served as test administrators but were assisted by local teachers who were briefed about the purpose and procedure of the data collection exercise.

Processing and Categorisation of Critical Incidents

As a first step towards translating the critical incidents into dimensions of teaching, they were transcribed to coded incident cards. The incidents so transcribed were the viable ones, i.e. those which provided all the essential information required on the CIF.

Following this, Education students (mostly graduates with varying lengths of teaching experience) from three universities were engaged to classify the incidents into given categories of teacher behaviours. They were presented with the seven categories generated during the pilot study (TEDRO/WAEC, 1977) and instructed to generate any additional categories suggested by the types of teacher behaviours in the critical incidents.

The classifiers did not produce any new categories but slotted all the viable incidents into the seven given categories. A sample of the incidents were scrutinized and the appropriateness of their classification cross-checked by the TERP research staff. However, the most important test of the appropriateness of the categorisation was the viability test. This was based on computer analysis centring around:

(a) the frequencies of incident types and

(b) agreement among the classifiers on the categories into which individual incidents should be slotted.

The following criteria were used in the viability test; i.e. an incident was considered viable and satisfactorily categorised if

(a) at least two classifiers scrutinised and categorised it;

(b) when scrutinised by only two classifiers, the incident was slotted into the same category by both classifiers; and

(c) when scrutinised by more than two classifiers, the incident was slotted into the same category by at least 40% of the number of classifiers.

At the end of the viability test, slightly over 3,000 critical incidents survived. The distribution of these incidents among the seven categories and the idefinitions of the categories are as given in Table I.

TABLE I

TEACHER BEHAVIOUR CATEGORIES

Categories of Teacher Behaviours	No. of Viable Critical Incidents	Definition
1. Classroom Administration	780	The way a teacher organises and manages his class (including maintenance of discipline) to facilitate teaching-learning activities.
2. Organisation and Presentation of Teaching Materials	849	Teaching methods suitable for subject matter and pupils
3. Personal Relationship	586	Appropriateness of the teacher's style/manner of social interaction with colleagues and pupils.
4. Interest in the job (of Teaching)	578	The extent to which a teacher shows that he is willing to do more than the minimum or the average on his job and that he enjoys it.
5. Teacher's Classroom Presence	203	The overall impression of the teacher's personality as portrayed by his manners, dress, speech, etc
6. Student Participation	23	The extent to which the teacher encourages student contribution to and involvement in teaching-learning activities.
7. Evaluation of Student Performance	3	The extent to which the teacher is systematic, effective and fair in his assessment of pupils' learning and other school activities
TOTAL	3,022	

RESULTS AND DISCUSSION

Table I gives only a summary of this study. The seven categories of teacher behaviours shown and defined in the table are indicative of the complexity and variety of the facets or dimensions of teacher effectiveness. The definition of each category is not a priori but was derived empirically from the content of real life events after repeated scrutiny of the component incidents of the category.

However, it is pertinent to give two caveats concerning the relative importance and the independence of the dimensions of teacher effectiveness as represented by the categories derived from this study. First, a qualification must be given that the relative importance of the dimensionss is not entirely, or even necessarily, determined by the number of incidents which fall under individual categories in Table I. Experienced teachers know very well that some relatively non-frequently occurring teacher behaviour can have more decisive effect, for good or evil, or pupils' learning and general development than others which occur more frequently. A case in point is the paucity of incidents classified under Category 7, Evaluation of Student Performance. Evaluation is a critical behaviour in most human interaction situations; but quite often, evaluative behaviours occur at a low level of consciousness and are often of low quality. It is instructive to note that the few evaluative teacher behaviours recorded in this study were adjudged to be mostly deleterious in their effects on the pupils' learning.

The second caveat concerns the fact that some incidents were found to fall under more than one category, implying that the categories overlap to some extent. This is normally to be expected. For instance, the category of Interest in the Job of Teaching is mainly an index of the enthusiasm with which a teacher performs the behaviours which normally fall under categories such as Classroom Administration and Organisation and Presentation of Teaching Materials. It will therefore be necessary to factor analyse data on the categories in order to identify the behaviours which are exclusive to the various categories.

In spite of these caveats, an operational, though elaborate (being multidimensional), definition of teacher effectiveness seems to emerge. It can be said that each dimension of Teacher Effectiveness consists of specific and discrete teacher behaviours identified as either negative (i.e harmful to pupils' learning) or positive (i.e. helpful to pupils' learning). It can then be said that a teacher is effective to the extent that he exhibits as many (and as often) as possible of the positive behaviours and as few (and seldom) as possible of the negative behaviours in each of the seven dimensions of teacher effectiveness.

Having thus defined teacher effectiveness, albeit tentatively, a yawning gap in teacher effectiveness research has been reduced. This multi-dimensional definition provided a specification for the instrumentation phase of the TERP, part of which has been reported elsewhere (Awuwoloye, 1983).

In addition, this operational definition of teacher effectiveness could provide clues for policy makers and curriculum developers concerning the types of behaviours which teacher trainees and practising teachers should be encouraged to cultivate.

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